Nineteen females: Wing, 535–565 mm. (548); tail, 134–148 (139); culmen, 134.8–148.8 (141.2); basal depth of upper mandible, 29.6–32.6 (30.7); basal width of upper mandible, 30–33.5 (32); tarsus, 88.3–94.4 (91.6); middle toe and claw, 121.4–131.4 (125.2).

The differences recorded in the foregoing paragraphs emphasize the necessity of large series in determining the range of variation in the tubinarine species, and the futility of attributing specific value to similar differences on no better evidence than single specimens.

The future of the dichromatic and structural variations of the Galapagos Albatross is unknown, as is also the future of the island geographic variations of more widely distributed species. It is held, therefore, that any system of classification that attempts to forecast the remote future of such variations is unscientific, and destined to be discarded like the Quinary System that flourished in the time of Swainson.

AUDUBON'S BIBLIOGRAPHY.

BY FRANCIS H. HERRICK.

At the end of the second volume of 'Audubon the Naturalist' published at the close of 1917, I added a bibliography of 240 titles, selective in respect to biography, criticism and miscellany, but as nearly complete as it was then possible for me to make it in other respects. The most important section was evidently that containing Audubon's principal works, five or, perhaps we should say, seven in number, namely: (1) 'The Birds of America' (4 vols. of plates only, in folio); (2) 'Ornithological Biography' (5 vols. 8vo. of text to No. 1); (3) 'A Synopsis of the Birds of North America' (1 vol.); (4) 'The Birds of America' (7 vols. of revised text and plates of Nos. 1 and 2, in octavo); (5) 'The Vivipar-

¹ 'Audubon the Naturalist: A History of his Life and Time.' In 2 vols. New York, 1917.

ous Quadrupeds of North America' (3 vols. of plates only, in folio); (6) 'The Viviparous Quadrupeds of North America' (3 vols. of text only, in octavo); (7) 'The Quadrupeds of North America' (3 vols of revised text and plates of Nos. 5 and 6, in octavo). Four of these, the folio 'Birds' and 'Quadrupeds,' the 'Biography' and the 'Synopsis' enjoyed but one complete edition under their respective original forms. Accordingly it would seem a simple task to prepare a full, correct, and therefore final bibliographic statement regarding so short a list. Such, however, is far from the case, since the 'Birds' and 'Quadrupeds,' in their reduced and final form, appeared before, during and after the Civil War, in numerous 'editions' or issues, which have proved so difficult to trace that no correct account of them has appeared up to the present time.

While bibliographic details are about the last subject to which a student of nature, with freedom of will unimpaired, would turn for refreshment, in the present case they afford a certain modicum of reward in biographical and historical interest; it is also apparent that possessors of such valuable and attractive works as Audubon's 'Birds' and 'Quadrupeds' have proved, are entitled to know the edition which their holding represents, as well as the time and circumstances which called it forth.

In preparing the list, to which reference was made, the principal public libraries in eastern America and western Europe were consulted, but that, it seems, was not enough, since correspondents in different parts of the country have pointed to certain errors and omissions, proving that significant sets of these works are quite as likely to be in private hands, or the smaller collections of books, as in the classic shades of the metropolis. For this service I am chiefly indebted to Rev. E. L. Shettles, of Brenham, Texas, and to Messrs. Henry Brannon, of Portsmouth, Ohio, Edward H. Johnson, of Philadelphia, and Charles E. Stratton, of Boston.

When we remember that large libraries have sometimes been guilty of eliminating titles and reducing the number of volumes which the author intended his work should represent; that Audubon's 'Birds' and 'Quadrupeds' in octavo form, were issued to subscribers in paper-covered parts that were liable to be dispersed or lost during the long period of disorganization which followed the

outbreak of the Civil War, and especially in the South where many of the naturalist's patrons resided; that the publication of first editions usually extended over a period of many years, that from 1854 to 1861 one or the other of Audubon's two sons was constantly projecting new issues of their father's standard works, and finally that when the collected parts came to be bound many defective sets were pieced out of two or more distinct editions,—some of the difficulties involved will be better understood. The present list is more nearly correct than any which has preceded it, but it would be remarkable if further verification and emendation were not needed.

It will be seen that the text of Audubon's 'Birds of America,' in its revised octavo form, has enjoyed no less than nine editions, namely (1) 1840–1844; (2) 1856; (3) 1859; (4) 1860; (5 and 6) 1861, one issue with, and one without, plates; (7) 1863, condition unknown; (8) 1865; (9) 1871. Excepting the possibility of error in one unverified notice (Nos. 14 and 16, below) there have appeared seven editions of text and plates combined.

The text of the 'Quadrupeds' has passed through four editions, namely (1) 1846–1853, text alone; (2) 1849–1854, text and plates; (3) 1854, text and plates; (4) 1856, text and plates, while the complete work, in octavo form, has appeared not once only, as formerly supposed, but three times.

For further detailed notes on the several editions the reader is referred to 'Audubon the Naturalist,' volume ii, Bibliography, Nos. 1–14 (which appear in brackets in the following list), pages 401–409.

Revised List of Audubon's Principal Works in their Several Editions.
1 (1). Audubon, John James:

The Birds of America, from Original Drawings by John James Audubon, Fellow of the Royal Societies of London & Edinburgh and of the Linnæan & Zoölogical Societies of London, Member of the Natural History Society of Paris, of the Lyceum of New York, &c. &c. &c. Issued without text, titles excepted, to subscribers, in 87 Numbers of 5 plates each (at 2 guineas a Part), or 435 copper-plate engravings, colored by hand, and representing 1,065 life-size figures of 489 supposedly distinct species of of North American birds, in double elephant folio. Published by the Author. London, 1827–1838.

2 (2). Audubon, John James, F. R. SS. L. & E. (with list of Societies):

Ornithological Biography, or an account of the habits of the Birds of the United States of America; accompanied by descriptions of the objects represented in the work entitled The Birds of America, and interspersed with delineations of American scenery and manners. 5 vols., royal 8vo, Edinburgh, MDCCCXXXI-MDCCCXXXIX.

Volume 1 was also issued in Philadelphia in 1831 and again in 1835, and volume 2 in Boston in 1835.

3 (3). Audubon, John James, F. R. SS. L. & E. Member of various scientific associations in Europe and America:

A Synopsis of the Birds of North America. Pp. i-xi, 1-359. Svo, Adam and Charles Black, Edinburgh; Longman, Rees, Brown, Green and Longman, London, MDCCCXXXIX.

4 (4). Audubon, John James, F. R. SS. L. & E. (&c., &c):

The Birds of America from Drawings made in the United States and its Territories. 7 vols. of text and plates, royal 8vo. Published by the Author and (partly) issued by J. B. Chevalier. New York and Philadelphia, 1840–1844.

First octavo edition of revised text and plates combined; issued to subscribers in 100 Parts each with 5 lithographic colored plates, or 500 plates in all, at \$1.00 a Part.

5 (5). Audubon, John James, F. R. S. &c., &c., and Bachman, The Rev^D. John, D. D. &c. &c.:

The Viriparous Quadrupeds of North America. 3 vols. of 150 lithographic colored plates; imperial folio. Published by J. J. Audubon, New York, 1845–1848.

Vol. I. Parts 1-10, pll. 1-50, 1845.

Vol. II. Parts 11-20, pll. 51-100, 1846.

Vol. III. Parts 21-30, pll. 101-150, 1848.

Issued to subscribers in 30 Parts of 5 plates each, size 28 x 22 inches, to compose 3 volumes (though sometimes bound in 2 with one title omitted), at \$10 a Part, or \$300, without text except titles, tables of contents and names on plates.

6 (6). Audubon, John James, F. R. S. &c., &c., and Bachman, The Rev. John, D. D. &c. &c.;

The Viviparous Quadrupeds of North America. 3 vols., royal

8vo. Published by J. J. Audubon and V. G. Audubon, New York and London (in part), 1846–1853.

First edition, without plates, issued to subscribers as text to the foregoing.

- Vol. I. Pp. i-xvi, 1-390. Published by J. J. Audubon, New York, 1846.
 - Vol. I. (European ed.). The same as foregoing with imprint of Messrs. Wiley & Putnam. London, 1847.
- Vol. II. Pp. 1–336. Published by V. G. Audubon, New York, 1851.
- Vol. III. Pp. i-vi, 1-257. Published by V. G. Audubon. New York, 1853.

A supplement of 93 pages and 6 colored plates, added in 1854, and apparently issued to all previous subscribers to this and the large folio, is sometimes bound up with the third volume of the present edition, when the date of which is usually quoted as "1854."

7. Audubon, John James, F. S. R. (&c., &c.), and Bachman, The Rev. John, D. D. (&c., &c.):

The Quadrupeds of North America. 3 vols. royal Svo, with 155 lithographic colored plates. Published by V. G. Audubon. New York, 1849–1854.

Vol. I. Nos. 1-10, pp. i-viii,, 1-383: 1849.

Vol. II. Nos. 11-20, pp. 1-334: MDCCCLI.

Vol. III. Nos. 21-31, pp. iii-v, 1-348: 1854.

First edition of text and plates in octavo; issued to subscribers in 31 Parts (in printed covers) of 5 plates each, at \$1.00 a Part, the number of plates being reduced to 155 by the omission of one of the small plates in the supplement noticed above. A set in the original (unbound) paper-covered Parts was quoted by Samuel N. Rhoads in his catalogue (No. 39) on "Auduboniana and other Nature Books" issued in 1919.

8 (7). Audubon, John James, F. R. S. (&c., &c.), and Bachman, The Rev. John, D. D. (&c., &c.):

The Quadrupeds of North America. 3 vols. royal Svo, with 155 lithographic colored plates. Published by V. G. Audubon, New York, 1854.

Second edition of text and plates.

9. Audubon, John James, F. R. S. (&c., &c.), and Bachman, The Rev. John, D. D. (&c., &c.):

The Quadrupeds of North America. 3 vols., royal 8vo., with 155 lithographic colored plates. Published by V. G. Audubon, New York, 1856.

The third and, so far as known, the last octavo edition of text and plates. Issued like the two preceding in 31 Parts; According to Rev. Mr. E. L. Shettles, of Brenham, Texas, who has furnished me with data concerning this hitherto unnoticed edition, the plates bear the legend: "Drawn on stone by Hitchcock."

10 (8). Audubon, John James, F. R. S. (&c., &c.):

The Birds of America, from Drawings made in the United States and their Territories. Vols. I-VII, royal 8vo. Published by V. G. Audubon, (R. Craighead, printer and stereotyper; 52 Vesey Street, New York, 1856.

The second octavo edition of Audubon's *Birds*, with 500 plates, but now appearing for the first time with colored backgrounds. According to Rhoads (*loc. cit.*) several of the plates were redrawn for this edition; the pagination is identical with that of the first edition, "but the text has been reset in a slightly different style of type."

11. Audubon, John James, F. R. S. (&c., &c.):

The Birds of America, from Drawings made in the United States and their Territories. Vols. I-VII, royal 8vo., with 500 colored lithographic plates. Issued by V. G. Audubon. Roe Lockwood & Son, 411 Broadway. New York, 1859.

The third octavo edition of the text and plates of the Birds. On the second page of volume 1 appears: "Entered according to Act of Congress 1839 by J. J. Audubon, in the clerk's office of the district court of the United States for the Southern district of New York," and in the lower left hand corner the following: "R. Craighead, Printer, Stereotyper, and Electrotyper, Caxton Building, 81, 83, and 85 Centre St." According to Rev. Mr. Shettles, who possesses a copy of this unnoticed edition, the paging of the respective volumes (omitting front matter, which is presumably the same as in No. 4 of the pre-

ceding list ¹) is as follows; 246, 199, 233, 321, 346, 456, and 372; the distribution of plates follows the first edition (No. 4, above). The plates bear the legend: "Lith., Printed, and Colored by Bowen and Co., Phila."

12. Audubon, John James, F. R. S. (&c., &c.):

The Birds of America, from Drawings made in the United States and their Territories. Vols. I-VII, royal Svo., with 500 lithographic colored plates. Issued by V. G. Audubon, Roe Lockwood & Son. 411 Broadway. New York, 1860.

The fourth octavo edition of the text and plates of the 'Birds.' According to my correspondent, Mr. Henry Bannon, a set of this unnoticed edition is in possession of the Public Library at Portsmouth, Ohio (volume 2, however, being from the third edition of 1859).

13 (9). Audubon, John James, F. R. S. (&c., &c.):

The Birds of America; from original Drawings by John James Audubon, Fellow of the Royal Societies of London & Edinburgh, &c., &c., &c. Reissued by J. W. Audubon. 1 vol. of 106 double elephant folio plates, in chromolithography, by J. Bien, 180 Broadway, representing 151 of the original copper plates. Roe Lockwood & Son, Publishers. New York, 1860.

The only (partial and greatly inferior) reissue of the original folio.

14 (10). Audubon, John James:

The Birds of America, from Drawings made in the United States and their Territories, by John James Audubon, F. R. S., &c. Reissued by J. W. Audubon. Vols. I-VII, royal Svo. Text only. Roe Lockwood & Son, Publishers. New York, 1861.

Vol. I, pp. i-viii, 11-246; Vol. II, pp. i-viii, 11-200; Vol. III, pp. i-viii, 9-234; Vol. IV, pp. i-viii, 9-322; Vol. V, pp. i-viii, 9-346; Vol. VI, pp. i-viii, 2-322; Vol. VII (not seen).²
First edition (in brown stamped cloth), without plates, and fifth octavo edition of the text of the 'Birds'; apparently

¹ See 'Audubon the Naturalist,' loc. cit.

² According to a copy quoted for me in detail, pp. 1-360 to which are added index to folio volume of plates pp. i-iv and index to the whole work pp. 361-372. The set to which this volume belonged was bound uniform with a copy of the 1860 folio plates and was obviously intended to accompany it as shown by index to plates, mentioned in Vol. VII.—WITTER STONE.

issued as text to the imperfect folio (see No. 13) described above. Rhoads (loc. cit.) lists, with a set of this edition, 2 vols. of 500 uncolored plates, in octavo, "bound in cloth to nearly match the seven volumes of text." The plates in this instance seem to have been issued to favor a particular purchaser.

15 (11). Audubon, John James, F. R. S. (&c., &c.):

'The Birds of America'... Reissued by J. W. Audubon. Vols. I–VII, imperial 8vo., with 500 lithographic colored plates, 10 × 7 inches. Roe Lockwood & Son, New York, 1861.

Fifth complete octavo edition (and sixth of the text) of the 'Birds.' Reference partly from Coues' 'Birds of the Colorado Valley,' Bibliographical Appendix: "List of Faunal Publications relating to North American Ornithology" (Washington, 1878).

16 (12). Audubon, John James:

'The Birds of North America:' a popular and scientific description of the Birds of the United States and their territories. New Edition. New York, 1863.

Not seen; supposed by Coues to be a reissue of the edition of 1856 or of 1861. If complete, the sixth octavo edition (and, if without plates, the second edition of the text alone) of the 'Birds.' As to plates, see note under 14.

17 (13). Audubon, John James:

'The Birds of America'....8 vols., 8vo. New York, 1865. The eighth edition of the text of the 'Birds,' and according to Coues a reissue of the edition of the text only, by J. W. Audubon, in 1861 (see No. 14 above), but in 8 instead of 7 volumes.

18 (14). Audubon, John James, F. R. S. (&c., &c.):

'The Birds of America,' from Drawings made in the United States and their Territories. Vols. I-VIII, imperial 8vo. George R. Lockwood, late Roe Lockwood & Son, 812 Broadway, New York. No date (1871.)

Vol. I, pp. i-viii, i-xv (memoir), 11-246, pll. 1-70; Vol. II, pp. i-vii, 11-199, pll. 71-140; Vol. III, pp. i-viii, 9-233, pll. 141-210; Vol. IV, pp. i-viii, 9-321, pll. 211-280; Vol. V,

pp. i-viii, 9-346, pll. 281-250; Vol. VI, pp. i-vii, 9-298; Vol. VII, pp. i-vii, 9-285, pll. 395-440; Vol. VIII, pp. i-viii, 9-256, pll. 441-500.

The seventh complete (? see Nos. 14 and 16, above), last and ninth edition of the text of Audubon's 'Birds.'

Sets of this issue, but without plates (and also bearing no date) were apparently circulated to some extent; at least one, answering to this description, was offered for sale in New York in January of this year.

SOME SUMMER BIRDS OF LIBERTY COUNTY, GEORGIA.

BY W. J. ERICHSEN.

To so thoroughly investigate the summer bird life of any selected area as to leave but slight room for belief that additional species. unsuspected of breeding in the area, would ever be subsequently discovered, would require continuous field work extending over a period of several years; therefore the present paper, based on notes made by the writer during a ten months' residence, from January 3 to November 1, 1913, at Allenhurst, Liberty County, Georgia, can in no wise be considered as being more than a brief review of the more common and characteristic breeding birds of the county. It is rather a preliminary list, intended for further elaboration by, and as information for, future workers in the field which it covers, and for the use of anyone who may be contemplating the compilation of a complete list of the birds of the state, to both of whom it may, I hope, prove of some value. Very little has been put into print respecting the avifauna of the coast region, or indeed of any part of the state of Georgia, and anything pertaining thereto, however meagre and of a local character, is a welcome addition to our knowledge of the state's bird life. It is with this realization that ornithological literature is almost destitute of